

PURCHASE DESCRIPTION
TESTER, SEMICONDUCTOR
TE2SC-A

- 1.0 **GENERAL.** This procurement requires a solid-state test set that presents a voltage versus current display of electronic components under test.
- 2.0 **CLASSIFICATION.** Class 3, in accordance with MIL-PRF-28800() for the Navy.
- 3.0 **OPERATIONAL REQUIREMENTS.** The equipment shall be capable of displaying on a CRT the electronic signature of discrete and integrated circuit semiconductor junctions, capacitance, inductance, and resistance in and out of circuit. The equipment shall be procured in each of the following configurations:

Configuration A: The equipment without Dual In-line Package (DIP) Interface (see para. 3.6)
Configuration B: The equipment with DIP Interface (see para. 3.6)

All of the specifications for configuration (A) shall also be applicable to configuration (B).
 - 3.1 **Display:** The equipment shall be provided with an integral CRT display. Controls for vertical and horizontal sweep position and brightness shall be provided.
 - 3.2 **Input Channels:** The equipment shall be provided with two input channels.
 - 3.3 **Test Signal:** An internally generated transformer-coupled sine wave test signal shall be provided.
 - 3.3.1 Frequencies: Line frequency, 200 Hz and 2000 Hz.
 - 3.4 **Gate Signal Generator:** The equipment shall be provided with a variable pulse/dc generator as detailed below.
 - 3.4.1 Output Level: -5V to +5V.
 - 3.4.2 Duty Cycle: 0% (dc) to 50%.
 - 3.4.3 Synchronization: The pulse signal shall be synchronized with the sine wave test signal.
 - 3.4.4 Number of outputs: 2.
 - 3.5 **Display Alternation:** The equipment shall be capable of alternately presenting voltage versus current displays from two input channels. The display alternation shall be manually and automatically controlled at a rate variable at least in the range of [1 Hz - 10 Hz].
 - 3.6 **DIP Interface:**
 - 3.6.1 DIP Socket: The DIP Interface shall provide two of 16 and two of 40 pin sockets for 16 and 40 pin DIP integrated circuits (ICs) testing.

- 3.6.2 Pin Selection: The DIP Interface shall be capable of selecting a desired pin of an IC for testing by mean of a push button.
- 3.6.3 Display Alternation: The DIP Interface shall be capable of alternately selecting voltage versus current displays from referent and under test ICs. The display alternation shall be manually and automatically controlled at a rate variable at least in the range of [1 Hz - 10 Hz].
- 3.6.4 Test and Gate Signals: The DIP Interface shall be capable of accepting and utilizing test and gate signals generated by the equipment specified in sections 3.3. and 3.4 respectively.

4.0 **GENERAL REQUIREMENTS.**

- 4.1 Power Source: MIL-PRF-28800(), refer to paragraph 3.5, see also 3.2.3.1 and 6.2 (K)
- 4.2 Weight: Tester 4.0 kg (8.8 lb) max. DIP Interface: 1.5 kg (3.3 lb) max.
- 4.3 Accessories: Safety-designed test probes in accordance with MIL-PRF-28800() and other test leads, cables, and IC clips necessary for comparison testing of out and in-circuit component shall be provided.